Bacteriology Department Melbourne University Carlton N3, Vic., Australia August 22, 1957

My dear Weibuull

The GEnetics Dept. office at Madison forwarded your letter of July 31. Esther and I will be here for about 3 mos. more.

The past year I have been working on the cultivation of E. coli protoplasts, i.e. at L forms in agar. As a rule, the repeated subcultures revert promptly to bacillary forms when removed from penicillin. This is rather unlike the Proteus situation, where wall-defective mutants overgrow in a fairly short time; we have also worked out some of the possible reasons for the selective advantage of such mutants.

The one type of wall-defect mutant we have repeatedly gotten in E. coli is auxotrophic for DAP; we are screening for a variety of other possibilities. This is unlike most of the Proteus L mutants, which fail to respond to DAP.

A paperhas been drafted for the Journal of Bacteriology. When this is in final form (i.e. after corrections on the basis of revix reviewers' comments,) I will see that a mimeographed copy is sent to you. Unfortunately, I do not haveone with me.Did I not send you a mimeographed research summary some months ago?

I suggest you communicate with Kandler at the Bot. Inst. in

I suggest you communicate with Kandler at the Bot. Inst. in Munich. He has recently found that some Proteus L mutants lack DAP (but also fail to respond to it); by contrast, penicillininhibited L growths contain DAP, as you have indicated from your own observations.

Yours sincerely,

Joshua Lederberg